IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

CHAU et al.

Examiner:

Unassigned

Serial No.:

Unassigned

Group Art Unit:

Unassigned

Filed:

September 30, 2003

Docket No.:

HSJ920030026US1

Title:

APPARATUS HAVING IMPROVED HARD BIAS PROPERTIES OF

LAYERS IN A MAGNETORESISTIVE SENSOR

CERTIFICATE UNDER 37 CFR 1.10

Express Mail' mailing label number: EL 981389835 US

Date of Deposit: September 30, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450.

Name: Bridget Hayden

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), and the 05 August 2003 Official Gazette Notice, only a copy of each foreign document or non-U.S. patent/application listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by anyone affiliated with the prosecution of the present application.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Respectfully submitted,

Crawford Maunu PLLC 1270 Northland Drive Suite 390 St. Paul, MN 55120

651/686-6633

 $\mathbf{R}_{\mathbf{W}}$

Date: September 30, 2003

David W. Lynch

Reg. No. 36,204

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Date Mailed: September 30, 2003

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Docket Number: HSJ920030026US1	Application Number: unassigned		
		Applicant: CHAU et al.			
		Filing Date: 09/30/2003	Group Art Unit: unassigned		

			U.S. PATENT DOCUMENTS		SUBCLASS	FILING D	ΔTF
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	IF APPROP	RIATE
	US 2002/0085322 A1	07/04/2002	PINARBASI				
	US 2002/0154458 A1	10/24/2002	LIN et al.				
	6,144,534	11/07/2000	XUE et al.				-
	6,278,592	08/21/2001	XUE et al.				
	6,396,669	05/28/2002	GILL				
	6,404,606	06/11/2002	PINARBASI				
-							

							 -
		F	OREIGN PATENT DOCUME	NTS		r	
 	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
							
					<u> </u>		

EXAMINER	DATE CONSIDERED					
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not						